

1. VOLUME OF AIRCRAFT FREIGHT
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 3. FREQUENCY OF FLIGHTS TO AND FROM FOREIGN COUNTRIES
- VOLUME OF SHIPPING FREIGHT TO AND FROM FOREIGN COUNTRIES

1. Volume of Aircraft Freight

The volume of freight carried on regular domestic airlines in Japan for the one-year period from January to December 1986 was 496,876 metric tons (582,578 t including overweight hand baggage and mail), 456,410 thousand tkm (525,070 thousand tkm including overweight hand baggage and mail). The ratio of the volume of aircraft freight to the total volume of domestic freight transportation was 0.01% by weight and 0.13% by tkm. In contrast to static railway and marine transportation volumes caused by changes from a large, heavy industrial structure to smaller, lighter industry and manufacturing, aircraft transportation volume has been increasing due to the demand for rapid distribution.

When the volume of freight is viewed by line, it was greatest for the Tōkyō-Sapporo (Titose) line with 100,838 t, followed by the Tōkyō-Hukuoka line with 66,030 t and the Tōkyō-Ōsaka line with 48,967 t. As for freight volume by airport, it was greatest for Tōkyō with 326,901 t (departure volume of freight 164,322 t; arrival volume of freight 162,579 t) which accounted for 32.9% of total airline freight volume, followed by Ōsaka with 161,272 t (80,978 t; 80,295 t) and Titose with 143,256 t.

[Salient Points of the Legend and Map Compilation]

This map shows the volume of freight for the regular airlines (excluding overweight hand baggage and mail) and arrival and departure volume of freight by airport for the one-year period from January to December 1986. Freight lines are drawn for the convenience and do not show the actual air route.

2. Volume of Shipping Freight

The volume of domestic shipping freight for the one-year period from January to December 1986 was 440,680 thousand tons. 197,950 million tkm. The ratio of the volume of shipping freight to the total volume of domestic freight transportation was 8.0% by weight and 45.5% by tkm.

When the volume of freight arriving and departing (excluding the volume of the freight on ferryboats) is classified by harbor, Tiba Harbor had the most with 66,290 thousand t, followed by Yokohama Harbor with 56,060 thousand t and Nagoya Harbor with 43,520 thousand t. When freight shipped by vessels carrying vehicles and freight from trade with foreign countries are included, Tiba Harbor had 150,760 thousand t, Kobe Harbor, 149,420 thousand t; Yokohama Harbor, 110,300 thousand t; and Nagoya Harbor, 107,740 thousand t.

Grade A harbors accounted for about 20% of the total number of harbors; however, the volume of freight handled by these accounted for about 90% of the total volume.

[Salient Points of the Legend and Map Compilation]

This map indicates Grade A harbors. Grade A harbors are specially-designated important harbors, important harbors and 46 harbors chosen from local harbors.

The freight unit is freight tons. Regarding ocean routes of freighters, in cases where the cargo transported into or out of a prefecture weighed more than 500 thousand t, lines are drawn for convenience and do not show the actual marine route. The volume of freight shipped into and out of a prefecture does not include the cargo of ferryboats.

3. Frequency of Flights to and from Foreign Countries

International regular airlines leaving from and arriving in Japan, including aircraft freight, as of December 1988 were operated by five Japanese airline companies and 42 companies from 37 foreign countries. The number of passenger flights per week was 1,053, of which the number of flights by Japanese air line companies accounted for 34.5%. When this is viewed by direction of lines, there were 398 flights (of which 35.7% were by Japanese companies) on Asian lines including the Middle East, Khabarovsk and Oceania; 338 flights (32.2%) on Pacific lines including Canada and South America; and 178 flights (38.2%) on Korean lines. The number of airline passengers to and from foreign countries in 1988, including transit passengers, was 26,640 thousand, of which 9,280 thousand were non-Japanese; the proportions carried by Japanese air transportation companies were 36.7% and 22.8%, respectively.

The frequency of scheduled international passenger flights was high for Asian lines; for example,

Seoul, 260 times; Taipei, 222 times; Honolulu, 200 times; Hong Kong, 198 times.

When air transportation by Japanese companies from January to December 1988 is viewed, the number of flights was 44,700; totalling 231,740 thousand flight km; the total flight time was 303,074 hours and the number of passengers, 9,430 thousand (45,481,270 thousand person km).

The average rate of seat occupation was 74.9%.

Japan Air Lines, Ltd., was once only international air line company in Japan; however, since 1986, pluralization of companies which fly international lines has been promoted, and as of January 1989, five companies (of these, one company was a freight air service company) operated international services. Scheduled international airlines leave from and arrive at 12 airports, such as the New Tōkyō International Airport, and international charter planes leave from and arrive at many local airports.

[Salient Points of the Legend and Map Compilation]

This map shows the total weekly frequencies in January 1989 of passenger flights on scheduled international air routes leaving from and arriving at all airports in Japan. Frequency refers to the number of takeoffs. Departures and arrivals are each counted as one.

3. Volume of Shipping Freight to and from Foreign Countries

Of the total volume of Japanese maritime trade for the one-year period from January to December 1986, exports accounted for 75,750 thousand tons, of which the volume carried by the Japanese merchant fleet consisted of 11,910 thousand t carried by Japanese vessels and 25,140 thousand t carried by vessels chartered from foreign countries. Imports accounted for 590,610 thousand t, of which the volume carried by Japanese merchant ships consisted of 250,370 thousand t carried by Japanese vessels and 152,980 thousand t carried by vessels chartered from foreign countries. Of the volume of freight exported and imported (including triangular trade) by Japanese merchant ships, 4.8% was accounted for by scheduled freight shipping, 58.4% by non-scheduled freight and 36.8% by oil tankers.

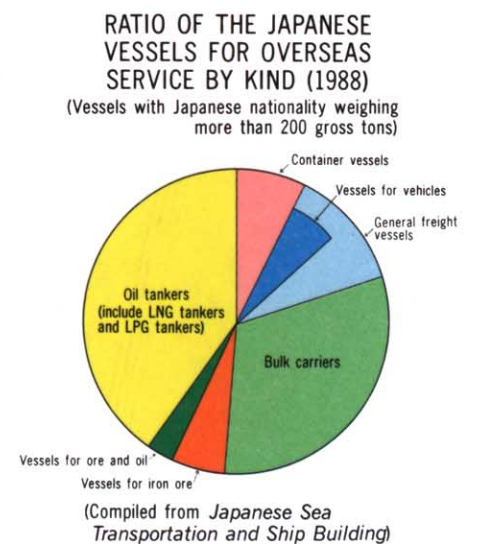
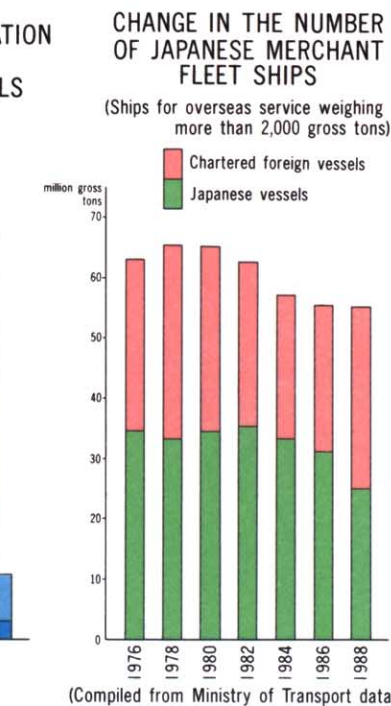
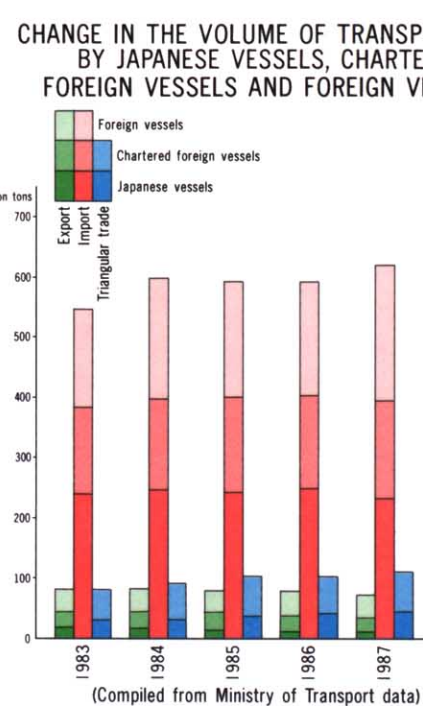
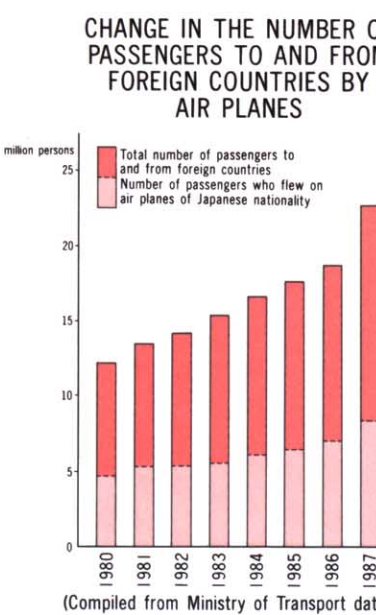
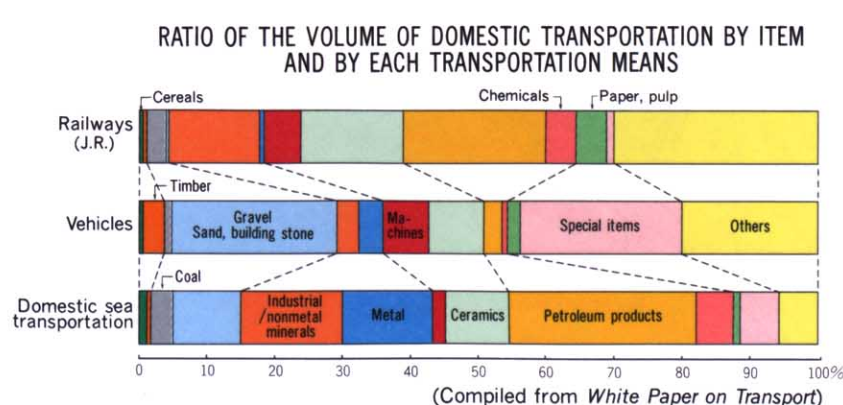
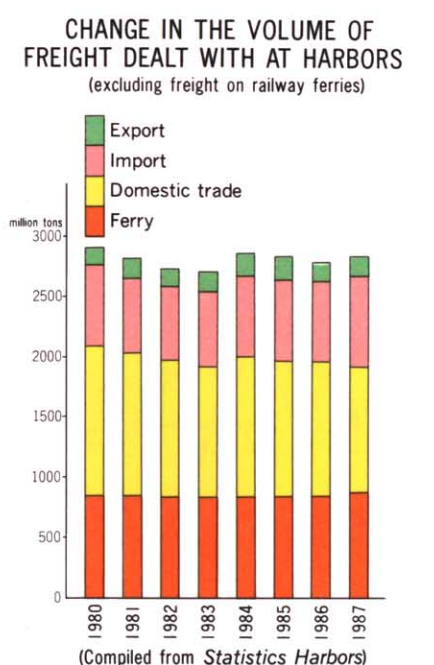
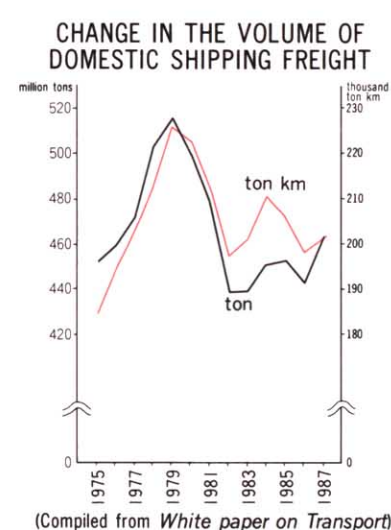
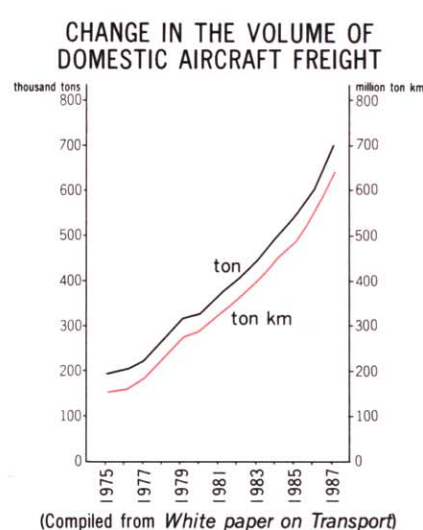
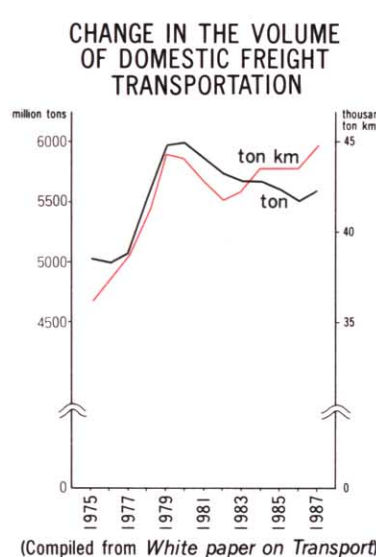
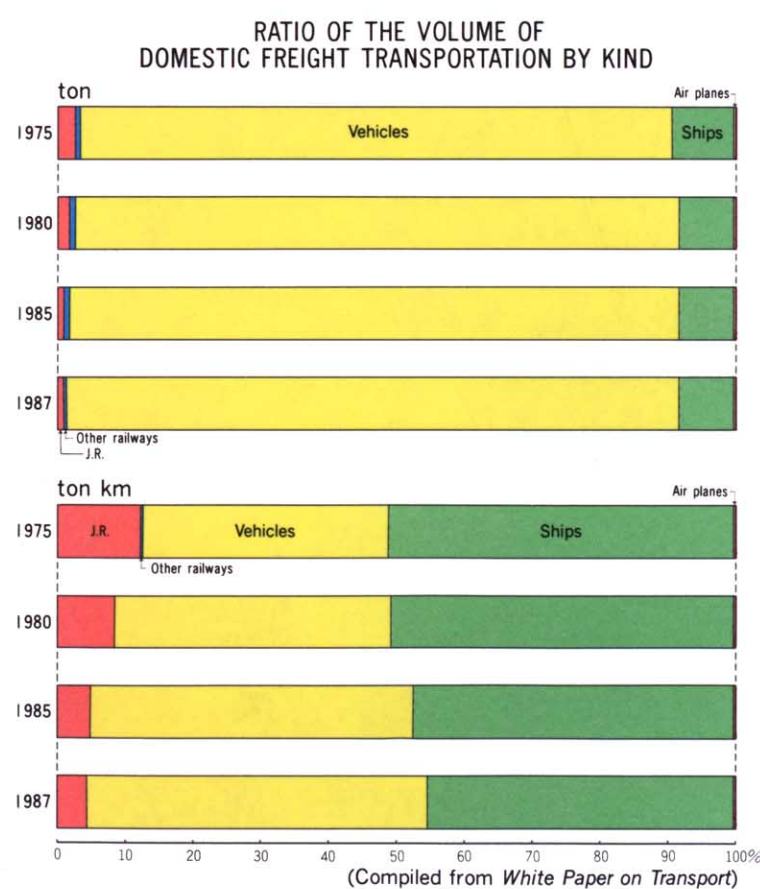
The number of Japanese merchant ships engaged in the transportation of freight to and from foreign countries was 957 Japanese vessels for overseas service (steel vessels with Japanese nationality weighing 2,000 gross tons and over, not including government vessels and other special vessels), weighing 30,809 thousand gross tons, and 1,292 vessels chartered from foreign countries, weighing 24,665 thousand gross tons. The number of vessels owned by Japan (steel vessels weighing 100 gross tons and over, including fishing vessels and miscellaneous vessels) as of July 1, 1986 was 10,011 (38,488 thousand gross tons and 59,979 thousand tons deadweight) accounting for 9.5% of the total volume of vessels in the world (gross tons). Japan ranked third in registered shipping following Liberia and Panama. However, the number of vessels with Japanese nationality has been decreasing since the mid-1980s, while the number applying for a change from Japanese registration to that of an accommodating foreign country for the purpose of cost reduction (known as "flagging out"), is increasing.

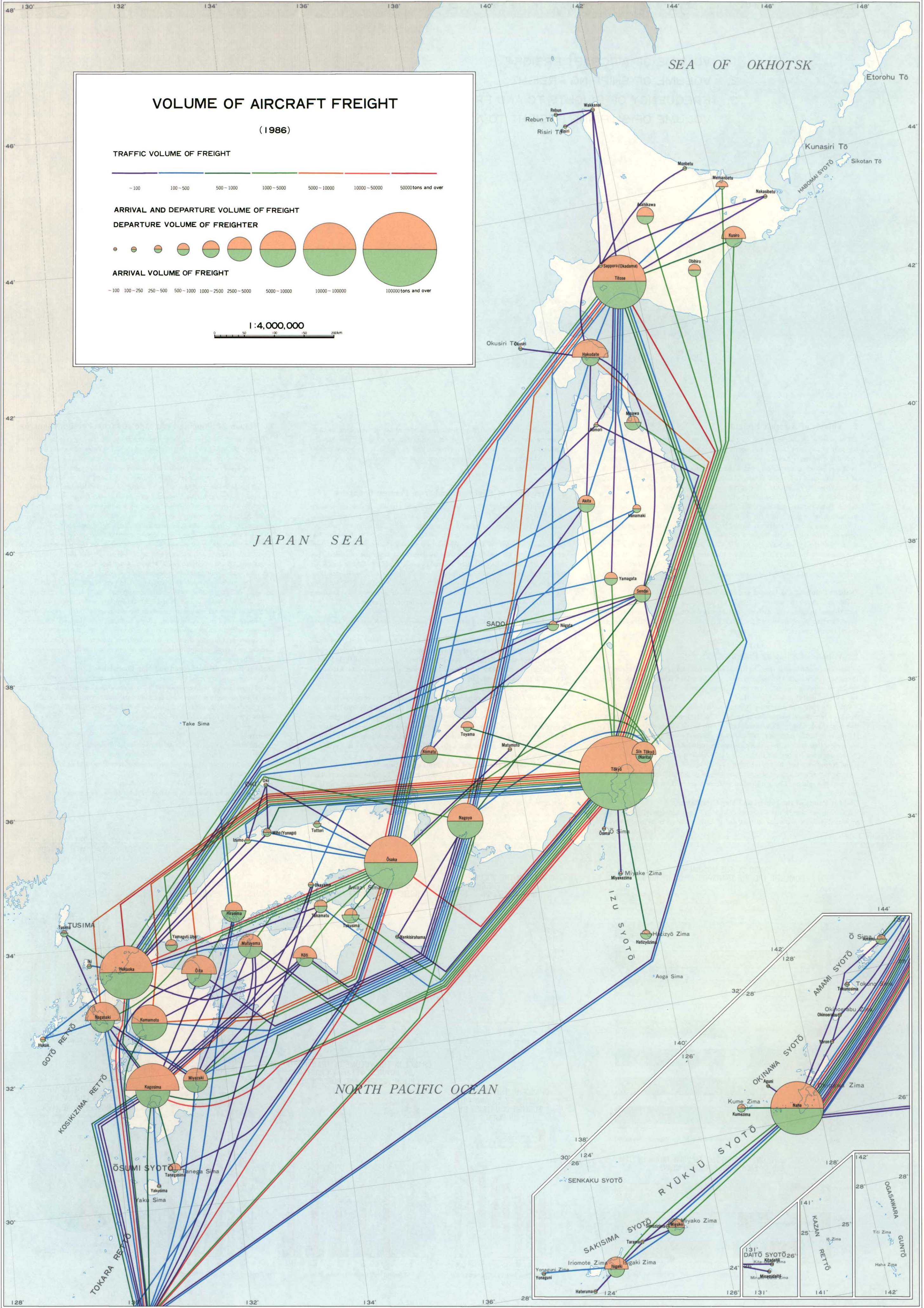
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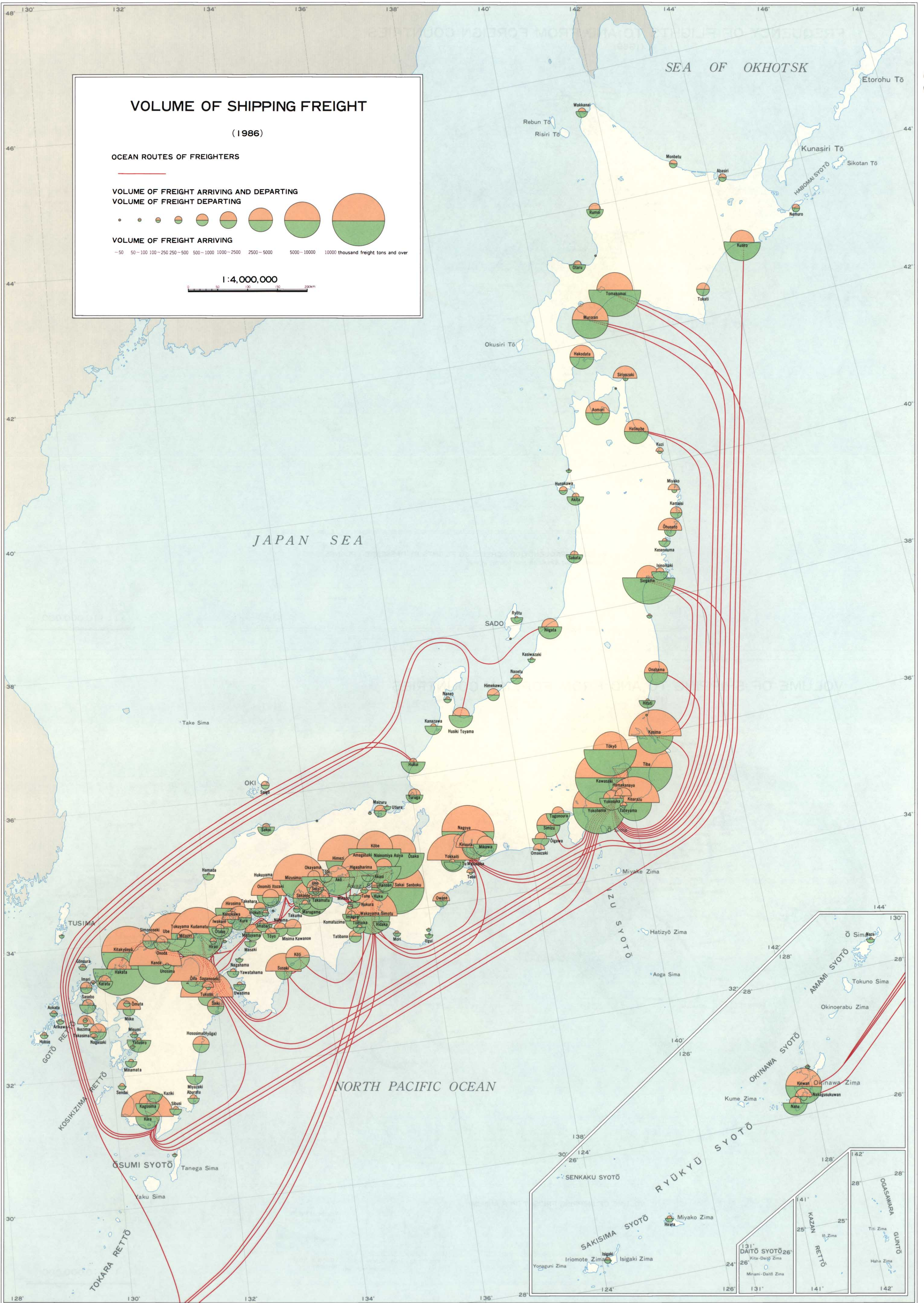
This map shows the freight volume to and from foreign countries for the one-year period from January to December 1986. The volume for each harbor in Japan was totaled and shown by destination in units of freight tons. The volume includes that of foreign vessels in addition to Japanese merchant ships (Japanese vessels and vessels chartered from foreign countries).

[Sources]

1. Ministry of Transport, *Annual Report on Air Transport Statistics*, 1987
2. Ministry of Transport, *Statistics on Harbors*, 1986
3. Japan Maritime Affairs Advertisement Association, *Marine Transportation and Shipping Shown in Figures*, 1989
4. Japan Travel Bureau, *JTB Time Table*, January 1989
5. Foundation for Promotion of Flight, *Flights Shown in Figures*, 1989

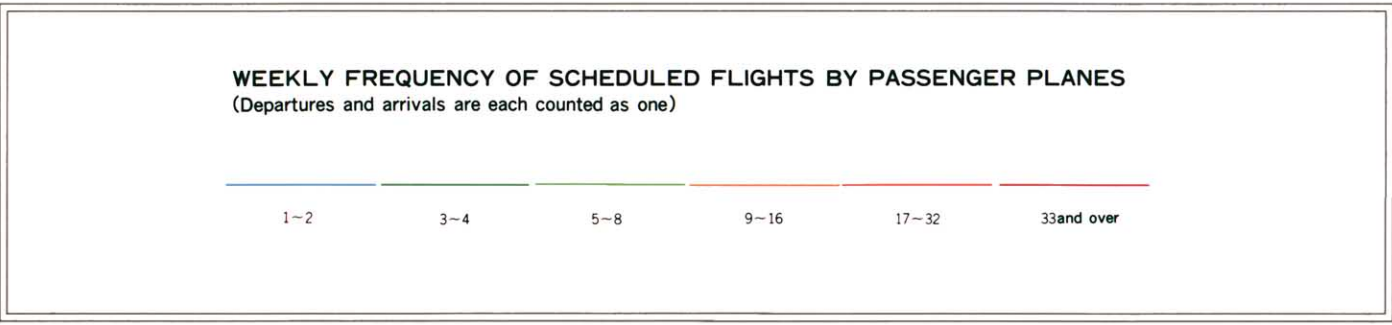
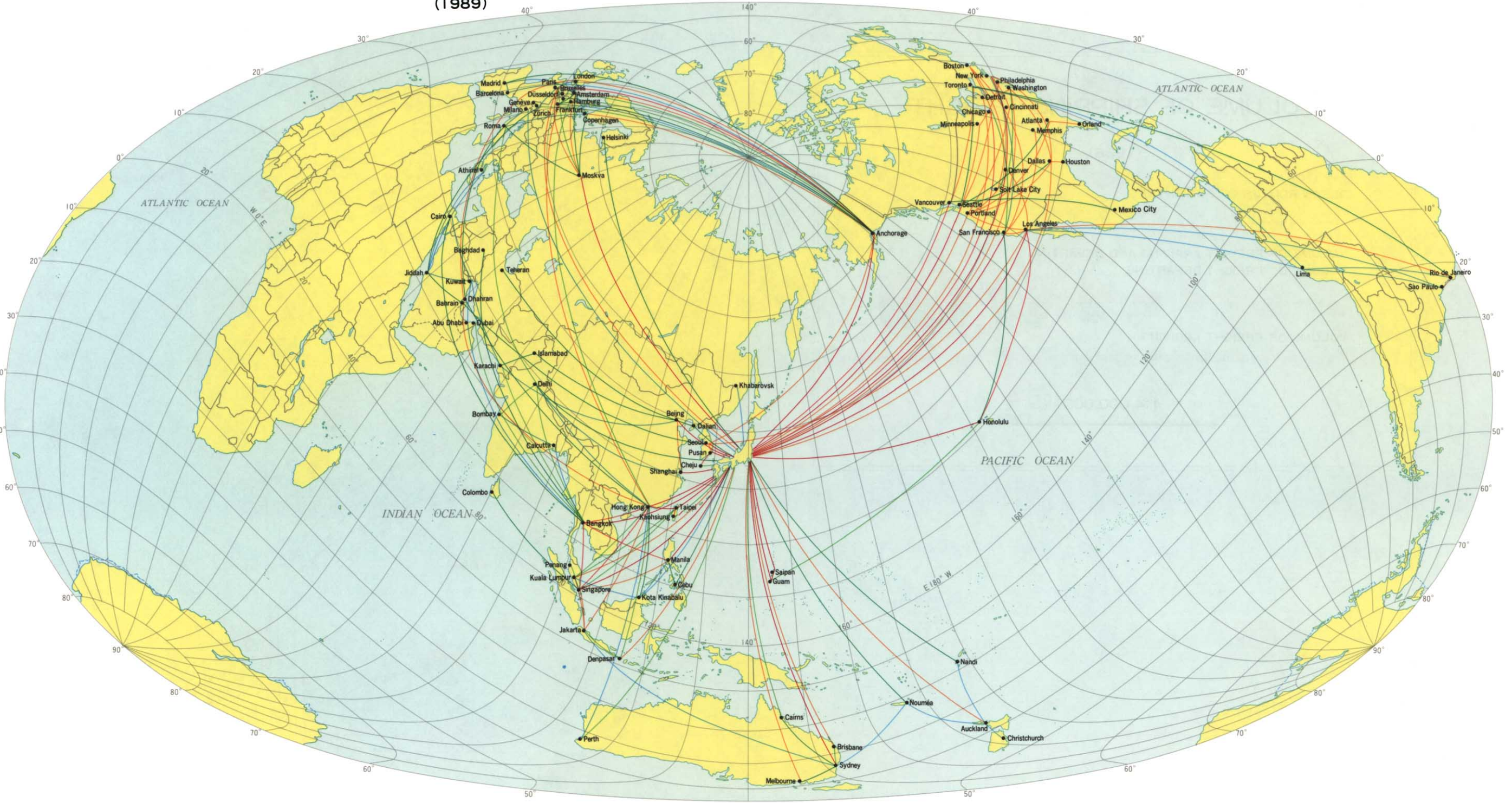






34.3

FREQUENCY OF FLIGHTS TO AND FROM FOREIGN COUNTRIES
 (1989)



VOLUME OF SHIPPING TO AND FROM FOREIGN COUNTRIES
 (1986)

